

REMARKS

In the Final Rejection mailed September 20, 2006, the Examiner:

- (1) rejected Claims 1-8, 13-20, 25-28, 31 and 32 as anticipated pursuant to 35 U.S.C. 102 (e) by Novitschitsch's U.S. Patent No. 6,457,547, as set forth in Section 1 of the Office Action dated March 23, 2006;
- (2) rejected Claims 9-11, 21-23, 29 and 30 as obvious pursuant to 35 U.S.C. 103 (a) and unpatentable over Novitschitsch in view of Ikeyama's U.S. Patent No. 6,922,477, as set forth in Section 2 of the Office Action dated March 23, 2006; and
- (3) objected to Claims 12 and 24 as being dependent from a rejected base claim, but indicated that Claims 12 and 24 would be allowable if rewritten in independent form including all of the limitations of the claims from which they depend, as set forth in Section 3 of the Office Action.

In the Final Rejection, in response to Applicant's response to the first office action, the Examiner states:

"On page 12, line 13, through page 13, line 4, the applicant alleges that the claimed "dual-sided connector" and what is disclosed by Novitschitsch are not the same; the examiner disagrees. In reply, it is noted that the applicant is basing the above conclusion on what is implicit in the claim language, specifically, what does the term "dual sided connector" imply. In essence a "dual sided connector" (as the plain language suggests) is a device with two sides that are each capable of connecting to another device. The plain language substantiates no other meaning, such that other attributes may only be posited

into the interpretation of the "dual sided connector" by way of clear lexicographic intent within the applicant's specification or explicit recitation within the claim. As already noted, there is nothing explicit in the claim, so attention is directed towards the applicant's written description. On page 10, lines 12-24, the dual sided connector is described in detail. However, this section is merely descriptive of an embodiment of a dual sided connector, specifically mentioning structural attributes of one of applicant's perceived embodiments, but not changing the plain meaning of the term "dual sided connector". As such, the usage of the plain meaning of the term "dual sided connector" presented in the Office Action is proper. The connector of Novitschitsch is read on by this interpretation as shown in the rejection of claim 1 filed March 23, 2006."

The March 23 rejection reads in pertinent part, "Connector 8 corresponds to the "dual sided connector", where connector 8 comprises a first housing portion external to wall 6 and a second connector portion internal to wall 6." Thus, the Examiner is interpreting the outer end and the inner end of Novitschitsch's connector 8 as presenting a "dual sided connector".

Applicant thanks the Examiner for his explanation of the bases of his final rejections and the indicated allowability of Claims 12 and 24 if written in independent form. Claims 12 and 24 have been placed in independent form including all of the limitations of the claims from which they depend. Applicant respectfully requests that the Examiner consider Applicant's amendments of Claims 1-11, 13-23, 30 and 32, and the following remarks that indicate that the Examiner's rejections of original Claims 25-29 and 30 are contrary to applicable law and that that amended Claims 1-11, 13-23, 30 and 32 are patentably distinguished from the cited references.

As set forth more fully below, the Examiner's rejection of the means plus function Claims 25-29 and 31 is contrary to 35 U.S.C. §112, sixth paragraph and applicable decisions of the Federal Circuit, and Claims 1-11, 13-23, 30 and 32

have been amended to more explicitly distinguish Applicant's invention from the cited references.

Original Claims 25-29 and 31

The Examiner's rejection of original Claims 25-29 and 31 is erroneous and contrary to applicable law. Claims 25-29 and 30 include elements expressed as means for performing specified functions. For example, Claims 25-29 include the expression:

"means attached to an outside surface of the housing means for providing a dual sided electrical connection site on the speaker means"

and claim 31 includes the expression:

"means for providing a dual sided connection between an amplifier output clip from an amplifier and the speaker housing".

35 U.S.C. §112, paragraph 6 states:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

In keeping with 35 U.S.C. §112, paragraph 6, MPEP Section 2111.01 states: "2111.01 Plain Meaning [R-3]

1. THE WORDS OF A CLAIM MUST BE GIVEN THEIR "PLAIN MEANING" UNLESS THEY ARE DEFINED IN THE SPECIFICATION"

". . . there is one exception, and that is when an element is claimed using language falling under the scope of 35 U.S.C. 112, 6th paragraph (often broadly referred to as means or step plus function language). In that case, the specification must be consulted to determine the structure, material, or acts corresponding to the function recited in the claim. *In re Donaldson*, 16 F3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994) (see MPEP §2181 - §2186)." (Emphasis added, p. 2100-48, MPEP, Eighth Edition, Revision 2 (May 2004).

See also MPEP 2106, p. 2100-9, Eight Edition, revision 2 (May 2004).

"Where means plus function language is used to define the characteristics of a machine or manufacture, claim limitations must be interpreted to read on only the structure or materials disclosed in the specification and "equivalents thereof" (Two en banc decisions of the Federal Circuit have made it clear that the Office is to interpret means plus function language according to 35 U.S.C. §112, sixth paragraph..."

Clearly, the Examiner has failed to interpret claims 25-29 and 31 in accordance with 35 U.S.C. § 112, sixth paragraph, as required by In re Donaldson, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994) and In re Alappat, 31 USPQ2d 1545, 1554 (Fed. Cir. 1994). The Examiner states, for example, in the Final Rejection ". . .

In essence a "dual sided connector" (as the plain language suggests) is a device with two sides that are each capable of connecting to another device. ... On page 10, lines 12-24, the dual sided connector is described in detail. However, this section is merely descriptive of an embodiment of a dual sided connector, specifically mentioning structural attributes of one

of applicant's perceived embodiments, but not changing the plain meaning of the term "dual sided connector"..."

In the Final Rejection of Claims 25-29 and 30, the Examiner has erroneously ignored the structure material and acts corresponding to the "means attached to an outside surface of the housing means for providing a dual sided electrical connection site on the speaker means" in Claims 25-29, and

"means for providing a dual sided connection between an amplifier output clip from an amplifier and the speaker housing" in claim 31.

The structures, materials and acts and equivalents thereof corresponding to the functions "providing a dual sided connection site on the speaker housing" (Claims 25-29) and "providing a dual sided connection between an amplifier output chip from an amplifier and the speaker housing" are described in the specification, for example, in paragraphs [010] – [016] and [036] – [038] and one embodiment thereof is illustrated in FIGS. 2-5.

There is nothing in Novitschitsch (or in Ikeyama, or their combination) that discloses, teaches or suggests the functions of "providing a dual sided electrical connection site on the speaker on the speaker means" (claims 25-29) or "providing a dual side connector between an amplifier output clip from an amplifier and the speaker", (claim 31) or the corresponding structure, materials and acts and equivalents thereof described in the specification.

Thus, Novitschitsch does not anticipate claims 25-29 and 31 and these claims are allowable and their allowance is respectfully requested.

Claims 1-11, 13-23, 30 and 32

As indicated above, the Examiner entered a Final Rejection of the claims because his broad interpretation of "dual sided connector" and "dual sided connection" read on Novitschitsch connector 8 which has only an input connection and an output connection. While Applicant has amended claims 1-11, 13-23, 30 and 32, Applicant believes that "dual sided connector" and "dual sided connection" comprise express limitations that distinguished the original claims from Novitschitsch. For example, Webster's Ninth New Collegiate Dictionary, published by Merriam-Webster, Inc., (copyright 1983) defines "side" as a noun as follows (1a: the right or left part of the wall or trunk of the body <a pain in the~>) and defines "side" as an adjective (1 a: of or related to the side b: situated on the side (~window) ... 2a: directed toward or from the side <~ thrust> ...) and defines "sided" as "having sides often of a specified number or kind <one-sided><glass sided>".

Thus, the Examiner has not given "dual sided connection" and dual sided connector" their plain meanings and it was not necessary to read implicit limitations from the specification into the claims to distinguish them from Novitschitsch.

Notwithstanding Applicant's belief, Claims 1-11, 13-23, 30 and 32 have been amended to more explicitly distinguish Applicant's invention from the cited references.

For example, Applicant's claims, as amended, include the following recited elements:

- (a) " a dual sided connector with oppositely facing side inputs located on an outside surface of the main housing wall", in Claims 1-11;

- (b) " a dual sided connector formed on an outside surface of the main housing wall with inputs on its right and left sides", in Claims 13-23;
- (c) "a speaker housing including a main housing wall, a mounting lip, a support member, a motor assembly housing and a dual sided connector... where the dual sided connector has a first side input and a second side input ...", in claim 30; and
- (e) " a dual sided connection having a first input connector and a second input connector at opposite sides of the dual sided connector" in claim 32.

Applicant's recited dual-sided connector 222 is illustrated in Figs. 2-5 and described, for example, as follows in the specification:

- (a) "The dual sided connector 222 illustrated in Fig. 2 includes two connector members 226 that are positioned at opposite sides of the dual sided connector". (Page 9, lines 28-29), and
- (b) "In Figure 3, an end view of one side of the dual sided connector 222 that shows one of the connectors is illustrated. A connection member 226 may comprise a T-shaped cavity 302 that extends inside the dual sided connector 222 to a predetermined depth. In addition, the connection member 226 may include at least two conductive leads 304 that are used to transfer electric signals to the loudspeaker 100. The two conductive leads 304 represent positive and negative connection terminals that are formed to extend through the dual sided connector 222. The two conductive leads 304 extend to both sides of the dual sided connector thereby allowing the clip that is connected to the dual sided connector 222

to be connected to either the first or second connection member 226. The dual sided connector 222 of the speaker housing 200 eliminates the need for manufacturing loudspeakers to be configured with right and left side loudspeaker terminals as the clip that supplies electric signals from the amplifier 120 may be connected to either side of the dual sided connector 222". (Page 10, lines 12-24)

With respect to Applicant's claimed dual sided connector, the Examiner interpreted Novitschitsch as follows:

(a) at page 2 of the Office Action of March 23, 2006, with respect to claim 1 and its dependent Claims 2-12;

"Connector 8 corresponds to the 'dual sided connector', where connector 8 comprises a first connector portion external to wall 6 and a second connector portion internal to wall 6";

(b) at pages 3-4 of the Office Action of March 23, 2006, with respect to dependent claim 8;

"As seen in figures 2 and 3, connector 8 includes a plug connector external to wall 6. The connector also includes terminals inside wall 6 connected to electrical lines 9. The plug connector and terminals correspond to the 'at least two connection members'. See Col. 2, lines 44-48."

(c) at page 4 of the Office Action of March 23, 2006, with respect to claim 31;

"Novitschitsch discloses connector 8, which provide dual sided connection between an amplifier output clip and the speaker housing."

(d) at page 5 of the Office Action of March 23, 2006, with respect to claim 32;

"Novitschitsch discloses 'a housing wall' 6 and a 'dual sided connector' 8 with 'a first connector' that receives 'an amplifier output clip' and 'a second connector equipped with terminals connecting to wires 9."

With respect to the connector 8 of Novitschitsch's drawings, Novitschitsch discloses only:

"At the outer side of the receptacle 2 a plug connector 8 for electrical lines to be connected to the loudspeaker 1 is provided. Electrical lines 9 (FIG. 2) extend from the loudspeaker 1 to the plug connector 8 and are connected within the receptacle 2 to the plug connector 8 in a suitable manner. (Col. 2, lines 44-48)

Thus, there is no teaching of the dual sided connector recited in Claims 1-11, 13-23, 30 and 32 in Novitschitsch (or for that matter in Ikeyama, as set forth below). Novitschitsch is concerned with providing a speaker holder that reduces the risk of damage to the loudspeaker during installation and that includes a soft rim to provide reliable sealing action. (See Col. 1, lines 10-56). Novitschitsch's connector 8, as illustrated in his Figs. 2-4, provides a single input connection for an amplifier. Novitschitsch discloses no concern for providing a speaker with a dual sided connector with two inputs or connections to avoid the need to manufacture both left sided and right sided speakers.

Since Novitschitsch clearly fails to teach every element of amended Claims 1-8, 13-20, 25-28, 31, and 32, the rejected claims are not anticipated by Novitschitsch, but are, Applicant respectfully submits, patentably distinguished from the cited references.

Claims 9-11, 21-23, 29 and 30

The Examiner finally rejected Claims 9-11, 21-3, 29 and 30 as obvious, 35 U.S.C. 103(a), over Novitschitsch in view of Ikeyama's U.S. Patent No. 6,922,477, as set forth in Section 2 of the Office Action dated March 23, 2006. Applicant respectfully disagrees.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)". (MPEP 2143.03, p 2100-139 Rev. 3, August 2005)

As set forth more fully below, Ikeyama, like Novitschitsch, fails to teach or suggest a dual sided connector as recited in Applicant's claims, and the obviousness rejections of Applicant's Claims 9-11, 21-23, 29 and 30 cannot be supported since all the claim limitations must be taught or suggested by the prior art.

In addition to the dual sided connector recitation of claim 1 set forth above, Claims 9-11, which depend not only from claim 1 but also from claim 8, include the following further recitations:

- (a) "the dual sided connector includes at least two connector members, one for each of the inputs, where each of the connector members include a cavity that extends inwardly a predetermined distance inside the dual sided connector", in claim 9;
- (b) "the dual sided connector includes at least two connector members, one for each of the inputs, where each of the connector members

include at least two conductive leads that extend to both sides of the dual sided connector", in claim 10; and

- (c) in addition to the above claim 10 recitation, "where each of the conductive leads extend a predetermined distance outside of the main housing wall and toward the inside of the enclosed cavity", in claim 11 (which depends from claim 10).

In addition to the dual sided connector recitation of claim 13 set forth above, dependent Claims 20-23 include the following further recitations:

- (a) "the dual sided connector includes a first connection member for its input on its right side and a second connection member for its input on its left side", in claim 20;
- (b) "the dual sided connector includes a first connection member for its input on its right side and a second connection member for its input on its left side, where each of the first and second connection members include a cavity that extends inwardly a predetermined distance from opposite sides of the dual sided connector", in claim 21;
- (c) "the dual sided connector includes a first connection member for its input on its right side and second connection member for its input on its left side, where each of the first and second connection members share at least two conductive leads that extend to both sides of the dual sided connector", in claim 22; and
- (d) in addition to the above recited subject matter of claim 22, "where each of the at least two conductive leads extend a predetermined distance outside of the main housing wall toward the central axis", in claim 23.

In addition to means for providing a dual sided electrical connection site recited in claim 25 set forth above, claim 29 further recites:

- (e) "where the connection means comprises a dual sided connector that includes at least two connection members having conductive leads extending across both sides of the dual sided connector."

Claim 30 recites:

- (f) "a speaker housing including a main housing wall, a mounting lip, a support member, a motor housing assembly, and a dual sided connector...where the dual sided connector has a first side input and a second side input, where the dual sided connector includes a pair of conductive leads that are connected to the pair of flexible conductive leads of the loudspeaker, where the pair of conductive leads extend to the first side input and the second side input of the dual sided connector.

As described, for example, at page 10 of the specification, Fig. 3 illustrates an end view of one of the connector members 226 of one side of Applicant's dual sided connector, and the connector member 226 may comprise a T-shaped cavity that extends inside the dual sided connector to a predetermined depth. In addition, the connector member 226 may include at least two conductive leads 304 that are used to transfer signals to the speaker 100, and the two conductive leads 304 are formed to extend through the dual sided connector 222 to both sides of the dual sided connector, thereby allowing the clip from the amplifier to be connected in the first or second connector member 226 of the dual sided connector. See page 10, lines 12-24, quoted above. Since the dual sided connector 222 contains two connector members 226 that are positioned opposite to each other on the outside of the speaker housing 200, the speaker assembly may be installed on any side of a motor vehicle or other object and may be used as both a left-handed or a right-handed speaker thereby eliminating the need for

the manufacture of separate speakers with connectors positioned on the left and right sides. See page 12, lines 8-14.

As set forth below, there is no teaching of the additional recited subject matters of Claims 9-11, 20-23, 29 and 30 in Ikeyama.

Ikeyama is concerned with holding the flexible wires 6 (FW) between the end of the voice coil and the terminal (ST) so they do not make contact with the speaker diaphragm 5 and damper 4. (Col. 1, line 60 to Col. 2, line 29). Ikeyama discloses no concern for either providing a speaker with a dual sided connector or for any need to avoid the manufacture of both left sided and right sided speakers, and contains no teaching of a dual sided connector.

Ikeyama's teaching regarding speaker connectors are with respect to connector 2 illustrated in Fig. 1, 2, 5 and 11-13, and with respect to connectors 11 and 12 of Figs. 7-10. None of the connectors disclosed by Ikeyama are dual sided connectors.

With respect to connector 2 of Figs. 1, 2, 5 and 11-13, Ikeyama's only description with respect to the speaker connection of Figs. 11-13 are "a speaker terminal (hereafter referred to as ST) mounted to the frame 1" Col. 1, lines 39-40), and:

"The above-described ST 2 comprises:

- a case 2A for accepting a connector coupled to a sound signal amplifier of an apparatus (not shown);

- the terminal plate 2b provided in the case 2A by a press-fitting method or by outset molding, for coupling with the connector; and

- a terminal hole 2c formed in the terminal plate 2b into which the relay cord 10 (to be described later) is inserted to be soldered.

In the above configured conventional speaker, the FW6 should always be managed not to make contact with the neighboring components (damper, diaphragm), even when the ST 2 is located close to the diaphragm 5..." (Col. 1, lines 51-63).

Ikeyama's description at Col. 3, line 3 through Col. 4, line 29 with respect to Figs. 1-5 omits constituent parts identical to those in the conventional technology, e.g., ST 2, (Col. 2, line 67- Col. 3, line 2) and with respect to connector 2 states only "a ST 2 mounted to the frame 1A" (Col. 3, line 18). Thus, Ikeyama contains no dual sided connector teaching with respect to the one-sided connector ST 2.

With respect to Figs. 7-10 and the descriptions of speaker connectors 11 and 12 included at Col. 4, line 30 through Col. 6, line 36, it is clear that Ikeyama, like Novitschitsch, is disclosing a connector with a single input.

For example, with respect to connector ST 11 Ikeyama states:

"As shown in Fig. 7, a ST 11 of the present embodiment comprises a casing 11B made of a plastic material having its opening at one end, and a pair of terminal plates 11A1 and 11A2 protruding through the opening of the casing 11B.

The pair of terminal plates 11A1 and 11A2 are disposed in the casing 11B by a press-fitting method and by outsert molding in casing 11B.

Each terminal plate 11A1 comprises:

- a. a terminal 11C1 of terminal plate 11A1 protruding within the casing 11B for leading electrical signals in;
- b. a bent and cut end 11D1, located at another end of the terminal plate 11A1 and extending out of the casing 11B for receiving a

FW6A or the like flexible wire;..." (Col. 4, lines 44-45, emphasis added.), and

"The terminal 11C1 and 11C2 are for coupling with a connector which delivers signals from outside (not shown)." (Col. 4, lines 66 and 67).

Only two terminals 11C1 and 11C2 are shown in Fig. 7 within the connector casing 11B extending toward its open end.

With respect to Figs. 8 and 9 and connector 12, Ikeyama states:

"A fourth exemplary embodiment also relates to a ST, like the third embodiment.

As shown in Fig. 8, a ST 12 in the present embodiment comprises a casing 12B made of a plastic material having its opening in an end, and pair of terminal plates 12A1 and 12A2 protruding within the casing 12B." (Col. 5, lines 41-46, emphasis added).

Only two terminal ends, 12C1 and 12C2 are shown in Figs. 8 and 9 within the connector body 12B extending toward its open end.

With respect to Figs. 9 and 10, Ikeyama states: "Fig. 9 is a perspective view showing how FWs are connected to the ST of Fig. 8" (Col. 2, lines 52-53), and "Fig. 10 is a cross-sectional view showing how a FW is connected directly to a voice coil in a speaker using the ST of Fig. 8." (Col. 2, lines 54-56).


As described in Ikeyama and illustrated in Figs. 7-10, the Ikeyama speaker connectors 11, 12, like Novitschitsch speaker connector, are one sided connectors, providing a single speaker input connection for an amplifier.

Thus, Ikeyama, like Novitschitsch, fails to disclose, teach, or suggest Applicant's claimed dual sided connector and also fails to disclose, teach or suggest the additional recited subject matters of Applicant's Claims 9-11, 20-23, 29 and 30. Claims 9-11, 20-23, 29 and 30 cannot be prima facie obvious in view of the cited references.

Applicant respectfully submits the Claims 1-32 in this patent application are patentable and are in condition for allowance and notices of allowability and allowance are respectfully requested.

Since the recitations of Claims 1-32 quoted above are sufficient to patentably distinguish the claims of the application from the cited references, there is no need to consider whether there are other recited elements and combinations of elements that may patentably distinguish Applicants' claims, and no inference should be drawn that the reasons set forth above are the only reasons that the claims of this application are patentable.

Respectfully submitted,


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